Cloud Computing for Enterprise

Course description

Cloud Computing is one of the most interesting technologies that has really changed the IT landscape in this last decade. Since it was defined for the first time, in 2006, this new emerging technology has been attracting the interest of several companies, which decided to use cloud infrastructure for running their own business instead making use of the traditional IT systems, and according to the forecast, many business enterprise will make use of it in the next future. More recently, also scientific community started thinking to use cloud solutions for solving scientific problem, and several studies have been done in order to spot trade-offs between costs and benefits from either economical and performance perspective. IT professionals all around the World need to be aware that, sooner or later, might deal with a cloud-based infrastructure.

Goal of the training course

The aim of our training course is to give to the participants an in-depth knowledge of Cloud Computing concepts, technologies, architecture and applications, in order to make the attenders able to understand when cloud computing can be a solution better than traditional IT and work with the traditional cloud environments, such as Google Cloud Infrastructure.

The participants

The course is designed for professionals, developers, architects, operators, managers and CIOs and anyone else who is interested about boosting his career and enable him to contribute more toward his company's success. The course will be held by expert trainers with many experience in Cloud Computing. The language of the course will be Italian but the materials used will be available in English.

Further information

The course is going to start in spring 2019.

Contacts

Feel free to contact Cesvip Lombardia for further information

Program

Some of the possible topics covered in the course are:

- Cloud Computing: definition and elements
- The interest on Cloud Computing
- Scalability and Elasticity
- Virtualization: different technologies
- Cloud computing: from a service model perspective
- Cloud Computing: from a deployment model perspective
- Servless computing
- The future of Cloud Computing
- Advantages and disadvantages
- Return on Investment
- Total Cost of Ownership
- Moving towards the Cloud
- The Cloud Market
- Google Cloud Platform
- Google Compute Engine: how to use it
- Managing Virtual Instance using GCE
- Interact with Virtual Instances
- Google Cloud SDK
- Installing and working with SDK

- Interact with GCE
- Virtual Box
- How Virtual Box works
- the Virtual Box components
- Work with Virtual Machine
- Virtual Hardware and Snapshot
- Guest Additions
- Virtual Network
- Remote Virtual Machine
- OpenNebula
- The user roles in OpenNebula
- The OpenNebula Architecture
- Installing and Working with OpenNebula
- Singularity and the Container
- Singularity vs. Docker
- Installing and Working with Singularity
- Interact to the containers
- Singularity for Parallel Applications
- Singularity and MPI
- Doploy a parallel scientific application on Singularity